ANDREW DAVIDSON & CO., INC. the Pipeline

AD&Co News – May 08

16th Annual Conference: The Times They Are A-Changin'

By Rob Landauer

Register now for AD&Co's 16th Annual Client Conference in New York and San Francisco to learn more about how the landscape for mortgages and MBS is rapidly changing and being redefined. The conference will be held in New York City on Wednesday, June 11th at TheTimesCenter and in San Francisco on Monday, June 16th at the W Hotel. To register online, simply click on the following link: http://www.ad-co.com/Conference/Registration.htm –there is no fee to attend and there are a host of hotel suggestions linked to the registration form. Please feel free to invite your colleagues that may not receive *The Pipeline*.

At the conference, we will explore the factors that have led to unprecedented declines in prepayment speeds and unparalleled highs in delinquencies and defaults. We will discuss the tools and methodologies that we have developed that can help you cope with the market malaise and help you thrive in the redefined market place.

This year's conference will feature presentations by AD&Co's modelers and analysts as well as panel discussions with market practitioners to provide a balanced and insightful look at the challenges ahead. This year, more than ever, we urge you to take the time to attend what promises to provide engrossing and frank discussion about state and future of the MBS and structured markets. As always, there will be some unique surprises and raffles to add some intrigue to the proceedings.

Please click on the link: http://www.ad-co.com/Conference/Agenda.htm –to view the agenda and sign up today. If you have any questions about the conference, please do not hesitate to contact Laura at 212-274-9075. We all look forward to seeing you in New York or San Francisco in June.

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Prepayment Update – May 08

New Prepayment Model Tuning Recommendations Released

By Sanjeeban Chatterjee & Dan Szakallas

In this article we recommend new tuning parameter recommendations for Non-Agency and Agency Collateral.

Prepayment Model Tuning Recommendations for Non-Agency Collateral
By Sanjeeban Chatterjee

The mortgage market is going through turbulent times. Lenders are tightening underwriting standards, and it is getting harder to refinance especially for sub-prime borrowers. This and other factors have led to a slowdown in speeds for all non-agency collateral types.

To reflect the current environment, we are recommending a set of tuning parameters for AD&Co's suite of non-agency prime and sub-prime prepayment models. These tunings are based on prepayment speeds that we have seen since the middle of 2007. Prior to the middle of 2007, these tunings will cause the model to under-predict speeds. We also realize that speeds should return to historical averages once the markets stabilize. So we tried to tune the models in a way such that current model speeds maintain a balance between what happened prior to the crisis period, the current period, and our expectations of some return to normalcy in the near future.

AS shown in the chart below, the models are slowed down using a combination of tunings for Turnover, Slide, Refi and Aging. The basic idea is to slow down turnover and refinancing. Tunings for Slide and Refi change the shape and position of the refinancing S-curve. Turnover and Aging slow down turnover and dampen some features of the ARM model such as the hump in speeds observed during the first 12-month period and the peak reset speeds.

	Fixed Rate			ARM / Hybrid			
Tuning	Non-Agency Prime	Sub-Prime		Non-Agency Prime	Sub-Prime		Option - ARM
Turnover	0.85	0.85		0.85	0.85		0.85
Slide	50	100		125	125		125
Refi	0.5	0.5		1	0.5		0.5
Aging				0.2	0.2		1

This is not a good time to re-optimize the models based on recent data. We do not know how long the current crisis is going to last and what structural changes there might be in the markets. We plan to recommend tuning parameters on a regular basis as the markets evolve and return to some form of normalcy.

If you have any questions, please contact Sanj Chatterjee at 212-274-9075 or at sanj@ad-co.com.

Prepayment Model Tuning Recommendations for Agency Collateral
By Dan Szakallas

In December, we issued some tuning parameters that we felt should be implemented until we were able to study more recent data and analyze it across different model versions. Now that we have had some time to digest a few more months' worth of data and spend a significant amount of time analyzing the performance of our fixed-rate prepayment models, we are ready to issue updated tuning parameter recommendations. These tunings reflect not only what has happened in regards to the ongoing credit crisis, but also address issues in older version of models that have not been analyzed in awhile. Overall, prepayments have remained slower than historical averages for most Agency collateral.

We focus here on 10YR, 15YR, 20YR and 30YR FNMA and FHLMC collateral, and on GNMA 15YR and 30YR collateral . The goal is to improve model fit over the last 6 months using our Dynamic Performance Reports (http://dynamic.ad-co.com/performance/), and also to assure that lifetime CPR forecasts and Weighted Average Life (WAL) values do not change in an overly sensitive way.

The models are adjusted using a combination of tunings for Turnover, Slide, Refi and Burnout. The basic idea is to slow down Turnover and Refinancing in the v5.1f/v5.2d models for 30YR collateral, as they were overstating prepayments over the last 6 months, especially for coupons 6.0% and above. For shorter term collateral, like the 15YR and 10YR, the models were actually a bit slow, so Turnover was slightly positively adjusted. For v5.02b, which was last estimated in 5/2003, Refi was dampened noticeably, while Turnover was positively adjusted. The parameters for the different versions are listed below.

Agency Prepayment Model v5.1f & v5.2d

Loan Type	Slide	Turnover	Refi
FNMA, FHLMC 10	0	1.25	1
FNMA, FHLMC 15	0	1.15	1
FNMA, FHLMC 20	0	1	1
FNMA, FHLMC 30	0	0.75	0.75
GNMA 15	-50	1	1
GNMA 30	0	0.75	1

Agency Prepayment Model v5.0.2b

Loan Type	Slide	Turnover	Refi	Burnout
FNMA, FHLMC 10	1	1.75	0.25	1
FNMA, FHLMC 15	1	0.75	0.75	1
FNMA, FHLMC 20	1	1.4	0.15	1
FNMA, FHLMC 30	0.99	1	0.5	1
GNMA 15	1	1.35	1	1
GNMA 30	1	1.25	1	0.25

If these values are entered into the Dynamic Performance Reports (http://dynamic.ad-co.com/performance/) the results will show how these recommendations improved model fit over the

last 6-8 months. We have also provided a table below that shows how the tunings affect the lifetime CPR forecasts and WALs for newly originated collateral.

Loan Type			WAL (months)	Equiv CPR
FNMA10YR	4.0	Default	48.9	8.5
FNMA10YR	4.0	FN10 tunings	42.9	12.7
FNMA10YR	4.5	Default	48.4	9.1
FNMA10YR	4.5	FN10 tunings	42.1	13.5
FNMA10YR	5.0	Default	44.2	12.1
FNMA10YR	5.0	FN10 tunings	38.6	16.5
FNMA10YR	5.5	Default	40.7	15.0
FNMA10YR	5.5	FN10 tunings	35.9	19.1
Loan Type			**WAL (months)**	**Equiv CPR**
FNMA15YR	4.0	Default	71.0	7.0
FNMA15YR	4.0	FN15 tunings	64.8	9.0
FNMA15YR	4.5	Default	67.5	8.3
FNMA15YR	4.5	FN15 tunings	61.0	10.5
FNMA15YR	5.0	Default	59.2	11.4
FNMA15YR	5.0	FN15 tunings	53.4	13.8
FNMA15YR	5.5	Default	49.7	15.7
FNMA15YR	5.5	FN15 tunings	45.5	17.9
Loan Type			**WAL (months)**	**Equiv CPR**
FNMA20YR	4.5	Default	80.8	8.5
FNMA20YR	4.5	FN20 tunings	80.8	8.5
FNMA20YR	5.0	Default	68.3	11.7
FNMA20YR	5.0	FN20 tunings	68.3	11.7
FNMA20YR	5.5	Default	55.1	16.1
FNMA20YR	5.5	FN20 tunings	55.1	16.1
FNMA20YR	6.0	Default	41.4	22.7
FNMA20YR	6.0	FN20 tunings	41.4	22.7
Loan Type			**WAL (months)**	**Equiv CPR**
FNMA30YR	5.0	Default	79.9	11.9
FNMA30YR	5.0	FN30 tunings	110.4	7.5
FNMA30YR	5.5	Default	52.5	19.2
FNMA30YR	5.5	FN30 tunings	77.7	12.5
FNMA30YR	6.0	Default	36.2	27.5
FNMA30YR	6.0	FN30 tunings	53.6	18.9
FNMA30YR	6.5	Default	31.6	31.2
FNMA30YR	6.5	FN30 tunings	45.4	22.3
Loan Type			**WAL (months)**	**Equiv CPR**
GNMA15YR	4.5	Default	65.2	9.0

GNMA15YR	4.5	GN15 tunings	58.2	11.6
GNMA15YR	5.0	Default	65.0	9.3
GNMA15YR	5.0	GN15 tunings	48.6	16.0
GNMA15YR	5.5	Default	59.5	11.4
GNMA15YR	5.5	GN15 tunings	39.1	21.9
GNMA15YR	6.0	Default	51.5	15.0
GNMA15YR	6.0	GN15 tunings	35.0	25.1
Loan Type			**WAL (months)**	**Equiv CPR**
GNMA30YR	5.0	Default	73.2	13.2
GNMA30YR	5.0	GN30 tunings	73.2	13.2
GNMA30YR	5.5	Default	54.0	18.6
GNMA30YR	5.5	GN30 tunings	59.7	16.8
GNMA30YR	6.0	Default	41.0	24.5
GNMA30YR	6.0	GN30 tunings	48.8	20.8
GNMA30YR	6.5	Default	33.8	29.3
GNMA30YR	6.5	GN30 tunings	41.4	24.4

We plan to monitor these recommendations over the coming months, as well as report the results of the same type of study on our Agency ARM prepayment models in next month's *Pipeline*. Additionally, these recommendations are posted on our web site:

http://www.ad-co.com/support/user/TPR502b.htm
http://www.ad-co.com/support/user/TPR51.htm
http://www.ad-co.com/support/user/TPR52.htm

If you have any questions, please contact Dan Szakallas at 212-274-9075 or at dans@ad-co.com.

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Credit Commentary – May 08

Доверяй, но проверяй
Doveryai, no proveryai
Trust, but Verify

By Andrew Davidson

"Trust, but Verify" was the Russian proverb used by President Ronald Reagan to describe his approach to arms control with the Soviet Union. The same standard should be used by investors in mortgage backed securities.

Trust is not the word that investors are using to describe their relationship to participants in mortgage securitization. Just about anyone and everyone involved in the process of creating loans and transforming them into securities is being blamed for the subprime crisis. The accusations are flying: Borrowers sought to make a quick buck and were over leveraged. Brokers engaged in underwriting deceptions or encouraged borrowers to do so on their applications, and earned excessive profits. Lenders ignored their own underwriting guidelines and looked the other way on fraud to boost loan volume. Dealers put together packages of loans they knew would default to gain underwriting fees. Rating agencies used models that were inaccurate so they could earn the fees from rating more deals. CDO managers put risky bonds in flawed structures to earn management fees.

Even if these accusations are not true, severe damage has been done to the reputations of all involved. Despite the damage, many are seeking to find a way to restore securitization as a viable outlet for loans. One avenue that is being traveled is the enhancement of disclosure. Some say, had there been additional disclosure, bad loans would not have been made since investors would have seen the problems; additional disclosure of borrower characteristics, broker compensation and rating agency methods would have been sufficient to alter the market.

Personally, I don't see it that way. While I am strongly in favor of additional disclosure, I do not believe that lack of disclosure was a significant cause of the subprime meltdown. (Lack of transparency, however, may have been a significant contributor to the liquidity crisis that ensued.)

Let's look at the facts. The main sources of the growing inventory of delinquent and defaulted loans were:

1. End of the bull market in home prices
2. Excessive use of piggy-back second mortgages
3. Excessive use of limited documentation loans for borrowers with poor prepayment histories
4. Excessively optimistic diversification assumptions in ABS CDOs

There was more than adequate disclosure of each of these items. For several years economists have been pointing out the divergence of home prices from median incomes. "Affordability products," originally designed as cash management products for wealthy borrowers, were being used to bridge the gap between borrowers' incomes and home prices. It was clear to many that home prices would not continue rising. The greatest uncertainty was whether the end of the bull market in home prices would result in flat home prices, or a decline in home prices.

Piggy-back second mortgages are an odd idea. While you might be unwilling to make a 90% loan to value (LTV) loan to a borrower with poor credit history, you would be willing to make them two loans, one with an 80% LTV and one for an additional 10%. In some cases the additional loan was for 15% or even 20%, bringing the combined LTV up to 95% or 100%. It is hard to imagine this working out well in any but the most optimistic of economic scenarios.

Limited documentation loans were a great innovation to allow homeowners with non-W2 earnings and substantial savings access to credit. However when limited documentation was extended to borrowers with poor credit and little savings, it again distorted the original intent and could only result in severe problems. Limited documentation was also a pathway to fraud. During 2005 and 2006 there was much discussion of growing levels of fraud, but there was no clamp-down on limited documentation lending.

In rating CDOs, the rating agencies use reasonably sophisticated models to determine the amount of credit enhancement required. While these models are somewhat complex and the data necessary to analyze individual deals is not readily available, the general principles and basic assumptions were generally available to investors. Mortgage-backed securities (including subprime) represent diversified pools of loans. Therefore, they are mostly subject to systematic risks (unemployment, home price declines). Combining these already diversified investments into a new pool can only marginally improve diversification. If the underlying securities are all triple B-rated, then it is likely that when one triple B-rated security takes a loss then others will as well. In fact, if the CDO was rated like a mortgage-backed security, based on the underlying loans, it would have been impossible to create a significant amount of triple A-rated securities out of triple B-rated collateral. Under the triple A-rated stress scenario virtually all of the triple B-rated cash flow would be wiped out. No additional disclosure beyond understanding the rating agencies published methodologies is required to reach this conclusion.

Additional evidence illustrates that the lack of disclosure was not the cause of the MBS/ABS meltdown. During 2005 and 2006, the market did not differentiate between issuers who provided more detailed disclosure and those who did not. Excessive trust was more likely the cause of the meltdown than insufficient disclosure.

Since the lack of disclosure was not the cause of the meltdown, by itself, disclosure, by itself, will not be the solution.

Suppose you find that your mechanic was repairing or replacing parts that were in good working order. What would you do? Ask to see the replaced parts on your next repair or find a new mechanic. If you don't trust your mechanic, you will likely find a new mechanic. The practice of giving the customer the old part is not intended to turn a crooked mechanic into an honest one, it is a way for a good mechanic to communicate his reputation to customers, and it serves as a deterrent to the replacement of working parts. In this case, disclosure (seeing the old part) can be

used to strengthen a trust relationship, but once there is distrust, disclosure alone will not restore the relationship.

The proper functioning of markets, particularly in securitization, requires that there are trusted agents. If the investor needs to assess the quality of workmanship along the entire chain of production, then they might as well originate the loans themselves. The power of securitization is its ability to separate the origination of loans from the investment in loans. Trust is a key element in this process. It seems that trust went a bit too far. Investors trusted borrowers, brokers, lenders, bankers, rating agencies and CDO managers, and in many cases that trust was abused.

Restoring securitization first means restoring trust. It may be that the existing (remaining) players can work to restore investor confidence, or it may be that new institutions will be needed. Once trust is reestablished, then disclosure can be used as a tool to allow verification and retaining that trust.

Viewed in this way it becomes clearer what type of disclosure is necessary. Disclosure should be designed to verify that parties are acting in the investor's interest without the investor having to assume their functions and responsibilities.

1. Investors need disclosure to understand the risks that they are taking.
    a. Information about loans that affects prepayments, defaults, losses
        i. Information about borrowers' capacity to take on the debt
        ii. Information about the property
2. Investors need disclosure about loans that were made improperly
    a. Good representations and warranties
    b. Monitoring of violations of reps and warrants
    c. Enforcement of reps and warrants
3. Investors need disclosure of which agents are trustworthy
    a. Performance history
    b. Compensation schemes

While additional disclosure is useful, it won't have any effect if it is not used. Investors must use disclosures to verify that securitization is being conducted in the manner they expect. Without verification, trust is blind faith and can easily be abused.

For example, when ratings are used, investors need to understand the methodology behind the ratings. This means understanding the strengths and weaknesses of the methodology, the implicit assumptions and the extent of the analysis conducted by the rating agencies. An investment grade rating, or even a triple A-rating, is not a license to skip due diligence.

As another example, in the subprime market, issuers disclosed that a substantial portion of loans were undocumented exceptions to underwriting policy. Investors should refuse to invest in such deals until the exceptions are documented, because undocumented exceptions cannot be validated. Investors should not be required to review the underwriting data directly to determine if the exception is warranted, for that would be taking on the underwriting function. Instead they should demand a disclosure of the amount and reason for the exceptions.

Where disclosure is a substitute for trust, it will not create a fully functioning relationship. Where disclosure is an adjunct to trust, a strong relationship can blossom. Just as in nuclear disarmament, let's try "Trust, but Verify," rather than continuing to rely on "mutually assured destruction" (MAD) for the future of securitization.

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Valuation Commentary – May 08

Full and Partial Vega

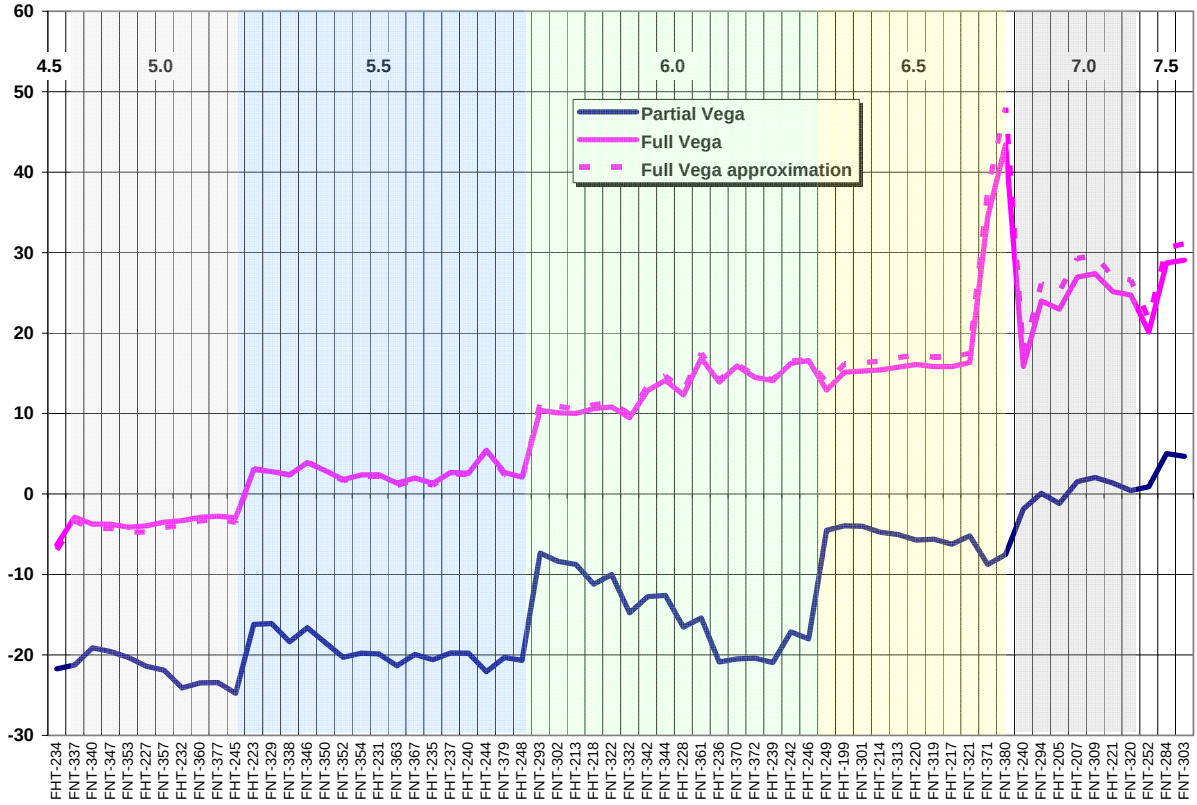
By Alex Levin

AD&Co's OAS model computes as many Greeks as one can perceive for MBS. One of them – Vega – measures price sensitivity to the overall volatility scale. For example, an MBS may have a Vega of -4.0 meaning that the price drops by 4 bps if the volatility scale inflates by 1%. This method of measurement ignores the fact that the MBS's current coupon can't remain constant with changing volatility. Hence, we measure only partial, not full, Vega.

Consider, for example, an IO. With the interest rate volatility going up, prepayments become more volatile as well, which may have a positive or negative effect on the IO's value. For an IO taken from a premium pool, volatility increases chances for WAL, hence value, to extend (partial Vega is positive). In contrast, an IO stripped from a discounted pool will likely show a negative partial Vega. If the GWAC is located at the center of the S-like refinancing curve (from the forward-market stand point), the extensions and contractions offset each other leading to a close-to-zero partial Vega.

The full-Vega picture will look different. The MBS static rate will widen to swaps when volatility is up. This change alone contributes positively to the value of IOs because it slows down the prepayment speeds. The positive Vega territory is therefore much larger than the partial Vega analysis suggests. Only deeply discounted collateral will produce negative Vega for its IO strip. The following exhibit compares the partial and full Vega for 64 Trust IOs.

Exhibit. The Full and Partial Vega for Trust IOs (as of Oct 2007, FNCL = 6.0%)



Note that within each coupon group IOs are listed from oldest to youngest. The approximation (punctured line) for full Vega shown in the exhibit is as follows:

$$V_{MBS}^{full} = V_{MBS}^{part} - D_{MBS}^{s} \frac{V_{CC}^{part}}{D_{CC}^{s} + IOM_{CC}} \qquad (*)$$

where D^s is duration to the current-coupon market (par TBA) rate, IOM stands for the IO multiple, "MBS" refers to the MBS in question (Trust IOs in our example) and "CC" refers to the par TBA.

The derivation of (*) is rather straight-forward. The first term in the right-hand side is the partial Vega we measure explicitly, whereas the second term quantifies the current-coupon effect. Note that $D_{CC}^{s} + IOM_{CC}$ measures the total sensitivity of the par TBA to its own coupon as the paid rate (IOM_{CC}) and as the market rate (D_{CC}^{s}). The par TBA doesn't change its value by definition, therefore the ratio of V_{CC}^{part} to $D_{CC}^{s} + IOM_{CC}$ measures the current-coupon rate sensitivity to volatility. Multiplying it by D_{MBS}^{s} we get the sensitivity of the MBS value to volatility due to the change in the current-coupon rate.

As shown in the exhibit, our approximation is rather accurate. It expresses the full Vega through measures easily obtainable via AD&Co's OAS model. It relieves financial engineers from the necessity to link current-coupon to volatility endogenously (inside the OAS model) that typically impairs performance.